

REMARKS

The following is in response to the Office Action mailed August 27, 2003. The Examiner has objected to the drawings because

A) the drawings must show every feature of the invention specified in the claims, therefore, the subject matter of:

- (1) claim 15 in regard to correlating the operational speed to the "product mix";
- (2) claim 19 in regard to correlating the transactions to the "product mix";
- (3) claims 32 & 51 in regard to inputting "product mix" information;
- (4) claim 47 in regard to correlating the operating speed and sales to the "product mix";
- (5) claim 59 in regard to using the internet as the source of the economic variable;
- (6) the apparatus of claims 72-78; and
- (7) claim 79 in regard to operation the using an operating speed/rate that results in a positive contribution to a marginal unit;

must be shown in the drawings as required by 37 CFR § 1.83(a) or the feature(s) cancelled from the claim(s) (note: no new matter should be entered).

Claims 15, 47 and 79 have been cancelled. Claims 19, 32, 51 have been amended. The features of claims 59 and 79 have been added to the drawings.

(B) The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. A proposed drawing correction or corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The disclosure is objected to because of the following informalities:

applicant must update: the continuing data on page 1, with the current status of each of the referenced applications.

Applicant has updated the continuing data as requested by the Examiner.

The Examiner states that the specification lacks a statement of -- I claim:--. Applicant has amended the specification accordingly.

The Examiner has objection to claims 15, 19, 32 and 51, and 47, for use of the word "product mix". Applicant has cancelled claim 15 and amended claims 19, 32, 51 and 47 accordingly.

The Examiner has objected to claim 59 in regard to using the internet as the source of the economic variable, because it lacks antecedent basis within the specification. Applicant cites to the following passages in the specification which show antecedent basis:

Page 6, line 31 to page 7, line 1;

Page 7, lines 23-24;

Page 9, lines 17-18;

Page 15, lines 9-11;

Page 22, lines 13-14;

Page 23, lines 15-16; and

Page 25; lines 4 and 5.

The Examiner has objected to the apparatus of claims 72-78 as lacking antecedent basis within the specification.

Applicant has cancelled claims 72-78.

The Examiner has objected to claim 79 in regard to operation the using an operating speed/rate that results in a positive contribution to a marginal unit; lacks antecedent. The information claimed in claim 79 is evident from the specification.

The Examiner has rejected claims 15,16,19,32,51,59 & 72-79 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has cancelled claims 15 and 72-78 and amended claims 19, 32, 51 and 47 accordingly.

The Examiner has objected to claim 59 in regard to using the internet as the source of the economic variable, because it lacks antecedent basis within the specification. Applicant cites to the following passages in the specification which show antecedent basis:

Page 6, line 31 to page 7, line 1;

Page 7, lines 23-24;

Page 9, lines 17-18;

Page 15, lines 9-11;

Page 22, lines 13-14;

Page 23, lines 15-16; and

Page 25; lines 4 and 5.

A) the apparatus of claims 72-78; and

B) claim 79 in regard to operation the using an operating speed/rate that results in a positive contribution to a marginal unit;

lacks antecedent basis.

Applicant has cancelled claims 72-78

Applicant believes that the information claimed in claim 79 is evident from the specification.

In regard to claims 50 & 51, the subject matter of these claims lacks antecedent basis in claim 33/35/37/38/43/48 i.e., the combination of claims 33, 35, 38, 43 & 48 as they depend from one another. Applicant has amended Claims 50 and 51 to depend on Claim 49.

The Examiner has rejected claims 1-79 under the judicially created doctrine of double patenting over claims 1-39 of U.S. Patent No. 6,157,916 since the claims, if allowed, would improperly extend the "right to include" already granted in the patent. Applicant herewith encloses a Terminal Disclaimer.

The Examiner has rejected claims 33-49, 50, 51, 56 & 57 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

The instant claims recite a system/device, (claims 33-49, 50, 51, 56 & 57), which has a practical application in the technological arts, and which does not merely define either a computer program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon. Hence, the instant claims merely define

device that contains a series of steps that could be but are not necessarily to be performed on a computer.

It is further noted that applicant has not recited a specific machine since the operations recited in the claim are merely to illustrate the operations of the instant invention since these operations are not in fact implemented by a processor/computer. Hence, applicant envisions the invention as recited in claims 33-49, 50, 51, 56 & 57 as a disembodied storage device, i.e. memory, that stores a computer program as a non-functional data structure. Such a disembodied storage device is not a specific machine because:

A) it is not associated with a computer in such a way as to cause the computer to operate in a specific manner, and

B) a memory alone can not perform the functions recited within the claims.

Therefore, the recited disembodied storage device, which itself cannot perform the functions recited within the claims as the invention, is inoperative and lacks utility for the purpose of the invention.

In view of the above, the invention recited in claims 33-49, 50, 51, 56 & 57, merely describes an abstract idea of a disembodied storage device, i.e. memory, that stores a computer program as a non-functional data structure, since a disembodied storage device by itself can not produce a concrete and tangible result by performing the functions recited within the claims as the invention. Hence, claims 33-49, 50, 51,

56 & 57 do not have a claimed practical application, since the disembodied storage device is inoperative and therefore lacks utility for the purpose of the invention.

Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. Common situations involving nonfunctional descriptive material are:

- a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or
- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

Hence, claims 33-49, 50, 51, 56 & 57 are directed to non-statutory subject matter.

Since claim 33 includes the element that the optimal speed is inputted into the manufacturing facility in conjunction with a computer system, the claim does not merely define a device that contains a series of steps that could be but are not necessarily to be performed on a computer. Therefore the claims do not relate to a disembodied storage device. Therefore, the claims are not invalid over 35 USC 101.

The Examiner has rejected claims 1-79 as being unpatentable over Hart et al (3,490,689) in view of obvious business considerations as evidence by Meng (4,442,710) and Key et al (Reference U on PTO-892).

In regard to claims 1-79, Hart et al ('689) discloses a paper making process, which is controlled to maximize to profit, i.e. profit margin, for the paper making process. To determine the profit margin for the paper making process, Hart et al ('689) considers economic factors:

- A) the amount and cost of raw materials, (manufacturing inflows);
- B) the amount and price of the finished product (manufacturing outflows);
- C) the overhead and/or equipment and/or labor cost for the paper making process; and
- D) the quality of the finished product.

Based on this information the operator determined the desired operating conditions of the paper making process of Hart et al ('689). The control system of Hart et al ('689) then:

- A) determines the actual operating conditions of the paper making process;
- B) compares this actual and desired operating conditions; and
- C) controls the paper making process based on this comparison.

Further, Hart et al ('689) considers the efficiency of the paper making process, in that the process conditions are varied to determine the best operating conditions for the paper making process.

Hart et al ('689) does not explicitly disclose that the speed of the process is based on economic variables, however, at column 3, Hart et al ('689) discloses that the profit margin is based on economic factors:

- A) the amount and cost of raw materials, (manufacturing inflows);
- B) the amount and price of the finished product (manufacturing outflows);
- C) the overhead and/or equipment and/or labor cost for the paper making process; and
- D) the quality of the finished product.

Since one of ordinary skill in operating a business would recognize that:

- (1) any manufacturing process which does not have enough raw materials can not produce a finished product; and
- (2) any manufacturing process which does not produce either:
 - (a) a sellable finished product, or
 - (b) a sufficient quantity of the finished product,

because at some the operating conditions of the process, i.e. the speed of the process, would not be profitable to the operator, it would have been obvious to one of ordinary skill at the time the invention was made that the speed of the Hart et al ('689)'s paper making process is controlled based on economic variables. Note: either Meng ('719) or Keys et al (U) which controls the speed of a process based on cost-effective business strategy that considers economic factors.

In regard to the claimed program product, although Hart et al ('689) discloses an analog/compute system to perform the disclosed control functions, it would have been obvious to one of ordinary skill at the time the invention was made that control system of Hart et al ('689) could be upgraded to a computerized controller with a control program since the prior art is replete with digital computers performing the same functions as the control system of Hart et al ('689). Note Meng ('710), which uses a computerized controller to control the speed of a process based on cost-effective business strategy.

Applicant provides to the Examiner herewith a copy of the 1999 publication entitled Economics of the Pulp and Paper Industry which illustrates on page 145 that the speed of paper machines at the time when the Hart application was filed in May of 1963 was approximately 500m/min where as the speed of the paper machine at the time the present application was filed was approximately 2,000 m/min. The change in speed from 1955 to 1963 was approximately only about 100 m/min whereas the change from 1963 to present is over 4 times as great. Hart disclosed a papermaking process that controlled maximum profit based on the amount and cost of raw materials, whereas the claims of the present invention relate to controlling operating speed of equipment in a papermaking manufacturing facility and determines profit optimization based on the speed of the machine. Nowhere in Hart, Meng or Keys does any of the prior art reference disclose profit optimization based on the speed of the papermaking machine.

The Examiner agrees that Hart does not explicitly disclose that the speed of the process is based on economic variables and based on the fact that the speed of the paper machine was between 400 m/min to 500 m/min from 1955 to 1965 and the present speed of paper machines is approximately 2,000 m/min, one of skill in the art would not have considered that the present invention to be obvious.

Applicant believes that the application is now in condition for allowance.

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Date of Deposit: January 9, 2004
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